

NOTES ON PHILIPPINE RHAGOVELIA

(HEMIPTERA, VELIIDAE)

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The present paper contains the description of a new species and notes on two other species of water-striders of the genus *Rhagovelia* Mayr from the Philippine Islands. The specimens collected by C. F. Baker belong to the U. S. National Museum, including the type of *Rhagovelia teretis*, n. sp. All three species have large pronota, which cover all or most of mesonota.

Rhagovelia teretis, new species

Apterous form: Moderately large, brownish black, ferrugineous beneath, the pronotum with a broad, transverse, ochraceous band in front, the pronotum behind and outer margins of connexiva margined with dark brown. Appendages dark ferrugineous, the base of first antennal segment, all coxae and trochanters, and base of hind femur, testaceous. Antennae moderately long, proportions—I, 36, II, 22; III, 25; IV, 21. Pronotum distinctly punctate, large, broadly rounded behind, its median length a little less than width through humeri.

Male: Venter brownish black, narrowed and sharply ridged ventrally, very densely and rather widely clothed posteriorly with extremely long, golden hairs along each side of the median longitudinal ridge. First genital segment of male extremely large, very long, with apical two-thirds bent strongly downwards; second segment small, mostly inserted, the claspers broad, pointed posteriorly. Last tergite long, shiny, subequal in length to first genital segment, hairy along hind margin, the connexiva suberect, moderately wide. Hind femur considerably swollen, armed beneath with two rows (and some scattered ones between) of short, dark teeth, without long spines; tibiae considerably bent, armed with short spines beneath.

Female: Connexiva strongly reflexed inward posteriorly, meeting about the seventh segment and then continuing in contact to near apex, the apex acuminate and projecting posteriorly. Hind femur considerably swollen, distinctly smaller than in male, beneath armed with a row of short dark teeth and one long, black-tipped spine just behind the middle. Venter broadly rounded, brownish, the last segment nearly as long as the two preceding segments.

Length, 4.10 mm.; width, 1.20 mm.

Type (male) and allotype (female) Los Baños, Luzon, Philippines, Carl Baker collection, U. S. National Museum, Catalogue No. 58601. Two paratypes, male and female taken with the type.

The extremely long and stout first genital segment and shape of claspers of the male, and the hind femur and connexiva of female separate this species from other members of the genus found in the south Pacific and Australian regions.

The female is a little shorter than the male. The winged form is unknown.

Rhagovelia luzonica Lundblad

Rhagovelia luzonica Lundblad, 1937. Ent. Tids., 58: 6, fig. 4.

The type, a macropterous male, was described from Los Baños, Luzon. Seven apterous specimens, one male and 6 females, have been kindly sent to me by Dr. Lloyd Rozeboom. These were taken in a river near Baguio, Luzon, Philippine Islands. The apterous forms are described below.

Apterous form: head brown, flavous in front; pronotum brown, the anterior lobe and side flavo-fulvous, the hind lobe with a rather indistinct median, yellowish line; mesonotum dark fuscous; abdomen yellowish brown to brown, connexivum yellowish, margined with brownish black; abdomen beneath yellowish brown, with a black fuscous stripe on each side. Antennae fuscous-black, finely densely pubescent, the first two segments with a few long bristles, the first segment with considerable flavous; proportions—I, 45; II, 25; III, 30; IV, 25. Head with a median impressed, dark longitudinal line, with a few scattered, short, black bristles. Rostrum stout, flavous; terminal segment black, extending to middle of mesosternum. Sternum flavo-fulvous, also most of sides of thorax.

Legs moderately long, with long, blackish bristles, pale flavous beneath, brownish black externally, the intermediate tarus entirely brownish black; hind femur of female slender, with a few short spines within apically; hind femur of male very strongly swollen.

Rhagovelia philippina Lundblad

Rhagovelia philippina Lundblad, 1936. Arkiv. Zool., 28A, No. 21: 36, Pl. 6, text-fig. 18.

Males and female, Los Baños (3 specimens) and Baguio, Luzon (6 specimens); 1 specimen Surigao Island, Philippine Islands, Baker collection.

The last tergite of female is somewhat hairy. The connexiva are entirely dark. The transverse rectangular spot near the front margin of pronotum varies from yellow to deep orange in color.